SOCIO-ECONOMICS 2019.11.15

3.2.9 Socio-Economics

3.2.9.1 Affected Environment

This project is located on the northern end of the Blue Mountains. Timber sales located on the north end of the Walla Walla Ranger District may be purchased and operated on by individuals and companies based in any of the following counties: Columbia, Asotin, and Garfield counties in Washington, Umatilla and Union counties in Oregon. Therefore, the analysis area for economic impacts includes these counties. The economy of each county included in this analysis has a different level of dependence on federal timber production. However, if no action were to occur on this project, this project would not support or provide any jobs, any personal income, any state tax revenue, and would likely put additional strain on companies that employ forest workers. Implementation of proposed activities is expected to occur over the next 10 years, so this will define the temporal scale for analysis of economic viability and effects to local economies.

3.2.9.2 Relevant Laws, Regulations, Policies, Guidance, and Plans

Regulatory direction relevant to the Upper Touchet Project includes: Umatilla National Forest Land and Resource Management Plan (LRMP), March 1991, as amended, National Forest Management Act (NFMA 1976), and National Environmental Policy Act (NEPA 1970).

Executive Order 12898: Environmental Justice.

> Executive Order 12898 requires that federal agencies adopt strategies to address environmental justice concerns within the context of agency operations. With implementation of the proposed action or any of its alternatives there would be no disproportionately high and adverse human health or environmental effects on minority or low-income populations. The actions would occur in a remote area and nearby communities would mainly be affected by economic impacts as related to contractors implementing harvest, thinning, fuels treatment, and burning activities. Racial and cultural minority groups could also be prevalent in the work forces that implement prescribed fire or thinning activities. Contracts contain clauses that address worker safety.

The Upper Touchet project is consistent with Forest Plan direction on feasibility. Feasibility is based on the Umatilla National Forest Land and Resource Management Plan Management Goals for financial efficiency, salability to potential purchasers, and opportunities to reduce costs and increase revenues.

3.2.9.3 Methodology

TOTAL VOLUME

Total volume for the Upper Touchet Economic Analysis was derived based on data collected during field visits combined with silviculture inventory data, and is based upon silviculture prescriptions assigned to each unit.

HARVEST COST, HARVEST REVENUE, AND STUMPAGE

Harvest costs were derived using the Forest Service Region 6 LogCost program version 15.0 and HaulCost program version 18.0. Data input was based on previously completed timber sales on the Walla Walla Ranger District and specific project data recorded during field visits. Temporary road and

erosion control costs were estimated using standard Forest Service Region 6 cost estimation worksheets.

Harvest revenue estimates were obtained by speaking with Forest timber personnel and calling local area mills to develop an average current log values estimate by species. Using silviculture data, species composition estimates were made for each commercial treatment unit. Weighted average delivered log values were applied to volume estimates for each harvest unit and harvest revenues were estimated.

Stumpage value is the logging/hauling costs subtracted from the harvest revenue.

ADDITIONAL PROJECT ACTIVITIES COST

Resource specialists for each resource area provided cost estimates for connected actions within their resource. These cost estimates were based on information from previous similar projects, calling local contractors, and Region 6-approved appraisal programs.

NET PRESENT VALUE

Net Present Value was estimated using a 2% discount rate with harvest activities occurring over 5 years starting one year from now and the associated other activities beginning in year 2 and occurring over the following 5 years.

EFFECTS TO LOCAL ECONOMIES (JOBS CREATED OR MAINTAINED, PERSONAL INCOME, AND STATE TAX REVENUE)

The 2012 Forest Report by Rasmussen et al (2012) was used to estimate the number of jobs created or maintained based on the amount of timber harvested. Personal income was estimated based on this report as well. The Oregon Department of Revenue was used to estimate the amount of State Tax Revenue generated.

3.2.9.4 Impacts Analysis

COMMERCIAL HARVEST VOLUME

Commercial harvest volume is a product of all action alternatives and is dependent on the number of acres treated, tree species, and size of trees being harvested. Comparison of commercial harvest volume by alternative is shown in the comparison of alternatives for socio economics table below.

According to the Washington Department of Natural Resources Timber Harvest Reports from 2006-2016, timber harvest across the three Washington counties averaged 17,780 MBF per year from 2006 to 2016 with 6,281 MBF (35%) of that provided by federal timber lands. At the peak in 2006, the counties supported a 70,312 MBF timber harvest. Of which, 8,917 MBF (13%) came from Federal lands. The low timber harvest occurred in 2012 with 2,455 MBF harvested, 2,132 MBF (87%) Federal (DNR 2018).

Data from the University of Montana Bureau of Business and Economic Research shows that timber harvest in Union county averaged 47,598 MBF per year from 2006 to 2017. At the peak in 2006, Union County supported a 75,072 MBF timber harvest. The low timber harvest occurred in 2013 with 34,028 MBF harvested. Timber harvest in Umatilla County averaged 13,835 MBF per year in the same time frame, with a high of 22,833 MBF harvested in 2013 and a low of 7,388 MBF harvested in 2012 (BBER 2018).

A large portion of timber harvested in Umatilla and Union counties comes from private and industry owned lands. In both counties on average, approximately 13% of timber harvested came from Forest

Service land. In Asotin, Columbia, and Garfield counties, an average of approximately 51%, 13%, and 77% of timber harvested came from Federal land, respectively (BBER 2018).

LOGGING SYSTEMS, HARVEST COSTS, AND STUMPAGE

Ground-based systems are generally more cost effective and efficient at processing and transporting sawlog and nonsaw material to landing sites although the potential for resource damage can be high if improperly used. Cable systems are typically more expensive than ground-based systems, although the potential for resource damage is considered low to moderate due to the absence of ground-based harvest equipment. Helicopter yarding is by far the most expensive and much less efficient than either ground-based or skyline cable systems although the potential for resource damage is considered low due to the absence of roads and cable and ground-based yarding systems.

ADDITIONAL PROJECT ACTIVITIES

Resource specialists for each resources area provided cost estimates for connected actions within their resource area. These cost estimates were based on information from previous similar project, information from local contractors, and Forest Service Region 6 approved appraisal programs. These additional costs are shown by alternative in table 2 below. For this analysis, the following additional project activities were analyzed:

- Landscape prescribed burning
- Non-commercial thinning
- Tree marking
- Permitted route improvement

NET PRESENT VALUE

The standard criterion for deciding whether a government program can be justified on economic principles is net present value (NPV) – the discounted monetized value of expected net benefits (OMB A-94).

LOCAL ECONOMY

Many factors influence and affect local economies, including changes to industry technologies, economic growth, international trade, and the economic diversity and dependency of the counties. Total employment in each county is difficult to quantify exactly, as each source and state uses different criteria to measure and report employment. The Oregon Labor Market Information System (OLMIS) has the most current information for Oregon, and the Washington State Employment Security Department has the most current information for Washington.

The 2008-2009 recession impacted the timber industry in these regions especially hard. Unemployment rose significantly from January of 2008 to December, 2010. During this time period, unemployment in each county reached a high point when considering monthly unemployment rates from 2000 to 2018. The table below shows unemployment rates for counties through the recession to peak and current rates.

TABLE 1 UNEMPLOYMENT RATES BY COUNTY 2008-2018

County	January 2008	February 2009	October 2018 (current)	Peak Unemployment

Asotin, WA[1]	7.3%	10.8%	3.5%	12.0%	February 2010
Columbia, WA[1]	8.4%	12.9%	4.5%	14.0%	February 2000
Garfield, WA[1]	5.8%	7.6%	4.8%	12.4%	January 2010
Umatilla, OR[2]	5.6%	9.7%	4.6%	10.6%	April 2010
Union, OR[2]	6.5%	12.4%	5.1%	12.4%	February 2009

1 Data Source: Washington State Employment Security Department (2018)
2 Data Source: Oregon Labor Market Information System (2018)

3.2.9.4 ALTERNATIVE A PROPOSED ACTION ALTERNATIVE (AS SCOPED)

DIRECT IMPACTS: HERE AND NOW

Alternative A would provide a similar amount of commercial timber as the other alternatives, but because the logging costs are higher than the predicted harvest revenue, this alternative would provide a negative stumpage value. Proposed ground-based units show relatively high rates of return, but proposed cable units are less cost effective, and helicopter units are least cost effective and show a deficit return. Deficit helicopter units are the biggest factor contributing to negative stumpage values in this alternative.

TABLE 1 COMPARISON OF ALTERNATIVES

	Alternative A	Alternative B	Alternative D
Commercial Timber (CCF)	11,993	11,940	12,055
Harvest Revenue	$2,497,397	$2,500,279	$2,529,304
Harvest Cost	$2,787,569	$3,146,036	$2,440,611
Stumpage	-$290,173	-$645,757	$88,692
Additional Project Activities	$305,412	$305,412	$285,736
Net Present Value	-$555,806	-$891,014	-$180,470

INDIRECT IMPACTS: FARTHER AWAY IN TIME AND SPACE

EFFECTS TO LOCAL ECONOMIES

Commercial timber harvest may impact local economies by creating/retaining jobs both directly and indirectly related to harvest and manufacture of timber products and by contributing to personal income of forest workers. Research shows that approximately 10.88 forest sector jobs are created or retained for every 1 MMBF of timber harvested. The average wage rate of forest workers in the Western U.S. is estimated at $19.30 per hour (Rasmussen, et al, 2012).

TABLE 2 EFFECTS TO LOCAL ECONOMIES

	Alternative A	Alternative B	Alternative D
# Jobs Created/ Maintained (Total)	68	68	68
Personal Income	$2,710,138	$2,711,885	$2,737,654

CUMULATIVE EFFECTS

We cannot quantify the cumulative effect of this project with past, present, current, ongoing or reasonably foreseeable future projects because we cannot predict who will purchase individual sales within a project or what contractors will be used for implementation. Qualitatively, the jobs and income associated with the action alternatives may bring the local economy some increased relative stability during the life of the project (1-10 years).

CONCLUSION STATEMENT

Alternative A was the Proposed Action as originally scoped to the public. Analyses indicates that the potential impacts of the implementation of this action would result in minor, beneficial, direct and indirect impacts for the 1-10 year period that the project is being implemented from a socio-economic standpoint. Based on the Umatilla National Forest Land and Resource Management Plan Management Goals of financial efficiency, salability to potential purchasers, and opportunities to reduce costs and increase revenues, this alternative is not financially feasible on its own and may require additional funding. Salability to potential purchasers is less likely for Alternative A than for Alternative D.

ALTERNATIVE B

Alternative B would provide the least amount of commercial timber as compared to the other alternatives, and because the logging costs are much higher than the predicted harvest revenue, this alternative would provide a severely negative stumpage value. The elimination of temporary road use requires many units to be harvested using skyline and helicopter logging systems. The helicopter units are least cost effective and show a deficit return. The increase acres in deficit helicopter units is the biggest factor contributing to negative stumpage values in this alternative.

CUMULATIVE IMPACTS ANALYSES:

See Alternative A for cumulative impacts of alternatives A, B, and D

CONCLUSION:

Alternative B was developed for analysis in response to public comments regarding the use and construction, of temporary roads in implementation of the project, although stand treatments are similar in nature to Alternative A. Because of the elimination of temporary roads for this alternative, more commercial harvest acres would be accomplished through the use of helicopter logging systems. Therefore, it is anticipated that there will be an increase in costs to contractors, resulting in direct and indirect moderate adverse cost impacts to those contractors. Based on the Umatilla National Forest Land and Resource Management Plan Management Goals of financial efficiency, salability to potential purchasers, and opportunities to reduce costs and increase revenues, this alternative is not financially feasible on its own and would require a large amount of additional funding. Salability to potential purchasers is very low for Alternative B.

Alternative D

ANALYSES:

Alternative D would provide the most commercial timber of all alternatives. The harvest revenue is predicted to be greater than the harvest costs, creating a positive stumpage value. With the use of additional roads, additional commercial acres can be accessed and many harvest units can be implemented using cost effective ground based and cable systems, minimizing the use of the more

expensive helicopter system. Deficit helicopter units are still a factor in the stumpage value for Alternative D, but are no longer creating a deficit project.

CUMULATIVE IMPACTS ANALYSES:

See Alternative A for cumulative impacts of alternatives A, B, and D

CONCLUSION:

Although treatments methods are similar in Alternative D as in Alternatives A and B, this alternative is greater in extent within the area of NEPA analyses. Alternative D has the highest stumpage value, highest net present value, and has the potential to return the most money to the Federal Treasury. This is due to the reduced amount of helicopter logging proposed in favor of more cost efficient logging methods, such as cable and ground based logging. Based on the Umatilla National Forest Land and Resource Management Plan Management Goals of financial efficiency, salability to potential purchasers, and opportunities to reduce costs and increase revenues, this alternative is financially feasible. Alternative D may still require supplemental funding to fully implement proposed additional project activities, but much less than Alternatives A and B.

Lindsay Lockard
Forester
Umatilla National Forest
Walla Walla Ranger District
10/10/2019